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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,521	12/07/2001	Douglas M. Dillon	PD-N970636A	1352

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EXAMINER

TRAN, NGHI V

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/010,521	DILLON ET AL.	
	Examiner	Art Unit	
	Nghi V. Tran	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-39 and 47-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-18, 21, 23, 25-28, 31, 33, 35-37, 47-48, 51, 53, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al., U.S. Patent No. 6,105,064 (hereinafter Davis), in view of Gelman et al., U.S. Patent No. 6,415,329 (hereinafter Gelman).

3. With respect to claims 17, 25, 27, 35, 47, and 55, Davis teaches a gateway [col.7, Ins.57-63 and col.8, Ins.28-39] for use in a system wherein a source apparatus [32 i.e. sending endnode], said gateway, and a destination apparatus [34 i.e. receiving endnode] are coupled to a TCP/IP network, said gateway comprising:

- a packet receiving unit [42] that is configured to receive a packet addressed at the IP level from the destination apparatus to the source apparatus [fig.2 i.e. receiving endnode determine max window size and send the window size to sending endnode]; and

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- a transport level window size controlling unit that is configured to control the transport level window size of the packet received by said packet receiving unit in accordance with bandwidth usage associated with the destination apparatus [col.5, ln.40 - col.6,ln.63].

However, Davis does not explicitly show wherein the source apparatus, said gateway, and the destination apparatus have different IP address, and wherein the packet received by said packet receiving unit of said gateway has, as its source IP address, the IP address of the destination apparatus, and has, as its destination IP address, the IP address of the source apparatus.

In a communication system, Gelman suggests wherein the source apparatus (i.e. client **502**), said gateway (i.e. WISE gateway **504** or **508**), and the destination apparatus (i.e. server **512**) have different IP address, and wherein the packet received by said packet receiving unit of said gateway has, as its source IP address, the IP address of the destination apparatus, and has, as its destination IP address, the IP address of the source apparatus [fig.14].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Davis in view of Gelman by having different IP address among source apparatus, gateway, and destination apparatus because this feature is responsible for performing address mapping on incoming and outgoing packets [Gelman, col.8, lns.60-61]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to process by the

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respective gateway application or properly routed to their destination [Gelman, col.8, Ins.63-64].

4. With respect to claims 18, 28, and 48, Davis further teaches the bandwidth usage is measured as an amount of data sent to the destination apparatus per unit of time [col.4, Ins.13-58].

5. With respect to claims 21, 31, and 51, Davis further teaches the bandwidth usage is expressed as an average throughput [col.6, Ins.46-54 i.e. the current send window decreased by a factor, such as one-half].

6. With respect to claims 26, 36, and 56, Davis further teaches said transport level window size controller controls the transport level window size of the packet in accordance with the source IP address of the packet by reducing the transport level window size in respond to bandwidth usage associated with the source IP address exceeding a threshold [see abstract and col.5, ln.40 - col.6, ln.63].

7. With respect to claims 23, 33, and 53, Davis teaches a gateway [col.7, Ins.57-63 and col.8, Ins.28-39] for use in a system wherein a source apparatus [32 i.e. sending endnode], said gateway, and a destination apparatus [34 i.e. receiving endnode] are coupled to a TCP/IP network, said gateway comprising:

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- a throughput controlling unit that is configured to (a) determine the number of TCP connections that are open and (be) control throughput of data sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, in accordance with the determination of the number of TCP connections that are open [col.9, ln.5 - col.10, ln.35].

However, Davis does not explicitly show wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses.

In a communication system, Gelman suggests wherein the source apparatus (i.e. client **502**), said gateway (i.e. WISE gateway **504** or **508**), and the destination apparatus (i.e. server **512**) have different IP address [fig.14].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Davis in view of Gelman by having different IP address among source apparatus, gateway, and destination apparatus because this feature is responsible for performing address mapping on incoming and outgoing packets [Gelman, col.8, lns.60-61]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to process by the respective gateway application or properly routed to their destination [Gelman, col.8, lns.63-64].

8. With respect to claims 37 and 57, Davis further teaches wherein said transport level window size controlling unit modifies the TCP window size field of the packet [see abstract i.e. dynamic packet metering regularly adjust the rate].

9. Claims 24, 34, 38-39, 54, and 58 are rejected 35 U.S.C. 103(a) as being unpatentable over Engel et al., U.S. Patent No. 6,519,636 (hereinafter Engel), in view of Gelman.

10. With respect to claims 24, 34, 38-39, 54, and 58, Engel teaches a gateway [170] for use in a system wherein a source apparatus [160S], said gateway, and a destination apparatus [160D] are coupled to a TCP/IP network, said gateway comprising:

- a throughput controlling unit that is configured to control throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, in accordance with a leaky bucket analysis of a user's throughput [col.9, Ins.10-43].

However, Engel does not explicitly show wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and wherein said gateway intercepts the data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling unit.

In a communication system, Gelman suggests wherein the source apparatus (i.e. client **502**), said gateway (i.e. WISE gateway **504** or **508**), and the destination apparatus (i.e. server **512**) have different IP address [fig.14] and wherein said gateway intercepts the data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling unit [].

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Davis in view of Gelman by having different IP address among source apparatus, gateway, and destination apparatus because this feature is responsible for performing address mapping on incoming and outgoing packets [Gelman, col.8; Ins.60-61]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to process by the respective gateway application or properly routed to their destination [Gelman, col.8, Ins.63-64].

11. Claims 19-20, 29-30 and 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis and Gelman as applied to claims 18, 28, and 48 above, and further in view of Parker et al., U.S. Patent No. 4,009,346 (hereinafter Parker).

12. With respect to claims 19-20, 29-30, and 49-50, Davis and Gelman do not teach on the unit of time is a 24 hour period.

In a communication system, Parker discloses the unit of time is a 24 hour period [col.114, ln.54 - col.115, ln.7].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Davis and Gelman in view of Parker by specifying a 24 hour period of the unit of time because this feature avoids congestion and delay [Parker, col.114, Ins.55-62]. It is for this reason that one of ordinary skill in



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the art at the time of the invention would have been motivated in order to round up to the nearest frame integer [Parker, col.114, ln.63].

13. Claims 22, 32, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis and Gelman as applied to claims 17, 27, and 47 above, and further in view of Guha, U.S. Patent No. 5,699,369.

14. With respect to claims 22, 32, and 52, Davis and Gelman are silent on the bandwidth usage is determined using a leaky bucket analysis.

In a communication system, Guha discloses the bandwidth usage is determined using a leaky bucket analysis [col.13, lns.6-16].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Davis and Gelman in view of Guha by using a leaky bucket analysis because this feature avoids congestion [Guha, col.13, ln.6]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow sources to shape the traffic [Guha, col.13, lns.13-14].

### ***Response to Arguments***

15. Applicant's arguments with respect to claims 17-39 and 47-58 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner  
Art Unit 2151

NT

  
**ZARNI MAUNG**  
SUPERVISORY PATENT EXAMINER